REMARKS

Claims 1, 3, 4, 8, and 11 are rejected under 35 USC §102(e) as being anticipated by Little et al., U.S. 6,411,752.

Independent claim 1 recites a method of correcting resonance position or the external decay time of a waveguide micro-resonator comprising physically altering by deposition or growth of a thin film on the core of the waveguide micro-resonator so as to change the coupling efficiency and shape of the waveguide micro-resonator resonance.

Little et al. '752 describes optical resonators that are vertically coupled on top of bus waveguides, and are separated from the waveguides by a buffer layer of arbitrary thickness. The vertical arrangement eliminates the need for etching fine gaps to separate the rings and guides, and reduces the alignment sensitivity between the desired position of the resonator and bus waveguides by a significant degree. The resonator and bus waveguides lie in different vertical layers, and each can therefore be optimized independently.

In particular, Little et al. '752 describes removing portions of a micro-resonator and depositing materials on a micro-resonator. Claim 1 has been amended to recite that the core is physically altered by way of deposition or growth of a thin film on the core of the waveguide micro-resonator so as to change the coupling efficiency and shape of the waveguide micro-resonator resonance. In contrast, Little et al.'752 describes depositing UV material on the rings or over the whole chip. Applicants contend that Little et al. '752 is not using a thin film to effectuate any change in the coupling efficiency and shape of the waveguide micro-resonator resonance. Therefore, Little et al. '752 does not anticipate claim 1 as amended.

Claims 1, 3-5 and 8-12 are rejected under 35 USC §102(b) as being anticipated by the article of Chu et al., "Wavelength Trimming of a Microring Resonator Filter by Means of a UV Sensitive Polymer Overlay".

Chu et al. describes trimming the resonant wavelength of a vertically coupled glass microring resonator channel dropping filter with a photo-induced refractive change in a dip coated polymer overlay.

However, Chu et al. does not describe using a deposition or growth technique to physically alter the core of its resonator, as recited in claim 1. The teachings in Chu et al. suggest a technique of permanent wavelength trimming by means of UV induced refractive index changes in a spin coated photosensitive polymer. Note the change in the resonance condition occurs due to the change in the superstate cladding index. Furthermore, Chu et al. describes using a dip coating technique where a photosensitive polymer is dip coated over their microresonator device. Thus, Chu et al. does not teach or suggest a deposition or growth technique used to form a thin film. Dip coating does not produce thin films. Therefore, Chu et al. does not anticipate claim 1.

As to claims 3-5 and 8-12, they are dependent on claim 1. Therefore, claims 3-5 and 8-12 are also allowable for the same reasons argued with respect to claim 1.

Claim 6 is rejected under 35 USC §103 as being anticipated unpatentable over Chu et al.

Given that claim 6 is dependent on claim 1, the reasons argued for claim 1 are also applicable here. The deficiencies of Chu et al. are not obvious and thus claim 6 is allowable.

Claim 7 is rejected under 35 USC §103 as being anticipated unpatentable over Chu et al in view of Kawachi et al, US 4,900,112.

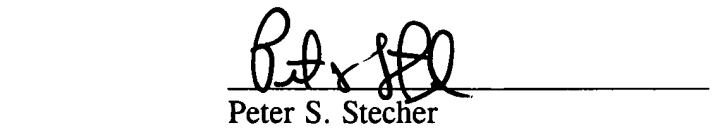
Kawachi et al. '112 describes an integrated optical device which comprises a substrate; a single-mode optical waveguide having a cladding layer disposed on the substrate and a core portion embedded in the cladding layer and for transmitting light therethrough. Stress is applied on a film that is disposed on a desired portion of the cladding layer and for adjusting stress-induced birefringence of the single-mode optical waveguide by irreversibly changing a stress exerted on the core portion by trimming the stress applying film.

Given that claim 7 is dependent on claim 1, the reasons argued for claim 1 are also applicable here. Also, Kawachi et al. '112 does not address the deficiencies of Chu et al. Therefore, the proposed combination of Chu et al. and Kawachi et al. '112 does not render obvious claim 7.

In view of the above amendments and for all the reasons set forth above, the Examiner is respectfully requested to reconsider and withdraw the objections and rejections made under 35 U.S.C. §102. Accordingly, an early indication of allowability is earnestly solicited.

If the Examiner has any questions regarding matters pending in this application, please feel free to contact the undersigned below.

Respectfully submitted,



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